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10/532,989	04/28/2005	Andre Ebner	1454.1611	3078

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EXAMINER	
SOBUTKA, PHILIP	

ART UNIT	PAPER NUMBER
2618	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/532,989	EBNER ET AL.	
	Examiner	Art Unit	
	Philip J. Sobutka	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 July 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 16,18,19,22,23,26,27,28,33-35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burr (US 2003/0078062) in view of Fredricksson (US 2004/0023678).

Consider claim 16. Burr teaches a method for synchronization of mobile stations in a radio communication system that is at least partly self-organizing and has mobile stations which are situated in reciprocal radio range via an air interface, comprising:

transmitting synchronization sequences from at least some of the mobile stations *(Burr see for example paragraphs 13, 31,33)*;

using the synchronization sequences from other mobile stations so that each mobile station can synchronize itself *(Burr see for example figures 1A&B, paragraphs 34,35)*.

Burr lacks a teaching of at least one of the mobile stations transmitting payload data with a range that is less than a range for synchronization sequences transmitted by the mobile station.

Fredricksson teaches an arrangement wherein the range of synchronization and payload packets are adjustable and can be adjusted such that the payload data is less than the synch data *(Fredricksson see for example figures 1A,1B,2, paragraphs 35,36)*. Fredricksson teaches that adjusting the synch range greater than the data range allows mobiles to complete synchronization before entering the data area *(Fredricksson see especially paragraphs 10)*. Therefore it would have been obvious to one of ordinary skill in the art to modify burr to transmit synch data with a greater range than payload data in order to allow mobile to complete synchronization before entering data transmission range as taught by Fredricksson.

As to claim 18, Burr in view of Fredricksson teaches the method according to claim 16, wherein the synchronization sequences are transmitted on a dedicated synchronization channel *(Burr see especially figures 4, 5, column 5, line 43 – column 6, line 18)*.

As to claim 19, Burr in view of Fredricksson teaches the method according to claim 16, wherein in order for a mobile station to synchronize itself, the mobile stations derives an internal synchronization position, the internal synchronization position being derived from synchronization positions detected from the other mobile stations *(Burr see especially figures 4, 5, column 5, line 43 – column 6, line 18).*

As to claim 22, Burr in view of Fredricksson teaches the method according to claim 16, wherein the synchronization sequences are transmitted via bursts which are separate from payload data bursts *(Burr see especially figures 4, 5, column 5, line 43 – column 6, line 18).*

As to claim 23, Burr in view of Fredricksson teaches the method according to claim 16, wherein the synchronization sequences are transmitted cyclically or periodically *(Burr see especially figures 4, 5, column 5, line 43 – column 6, line 18).*

As to claim 26, Burr in view of Fredricksson teaches the method according to claim 16, wherein the mobile station uses the synchronization sequences to synchronize time slots *(Burr see especially figures 4, 5, column 5, line 43 – column 6, line 18).*

As to claim 27, Burr in view of Fredricksson teaches the method according to claim 16, wherein only one mobile station starts a transmit operation within each time slot *(Burr see especially figures 4, 5, column 5, line 43 – column 6, line 18).*

As to claim 28, Burr in view of Fredricksson teaches the method according to claim 22, wherein the synchronization sequences are transmitted cyclically or periodically *(Burr see especially figures 4, 5, column 5, line 43 – column 6, line 18).*

Consider claim 33. Burr teaches a mobile station for a radio communication system, which is at least partly self-organizing, comprising:

a transmitter to: send synchronization sequences with reference to which other mobile stations can synchronize themselves *(Burr see for example paragraphs 13, 31,33)*.

Burr lacks a teaching of sending payload data with a range that is less than a range for the synchronization sequences sent by the mobile station.

Fredricksson teaches an arrangement wherein the range of synchronization and payload packets are adjustable and can be adjusted such that the payload data is less than the synch data *(Fredricksson see for example figures 1A,1B,2, paragraphs 35,36)*. Fredricksson teaches that adjusting the synch range greater than the data range allows mobiles to complete synchronization before entering the data area *(Fredricksson see especially paragraphs 10)*. Therefore it would have been obvious to one of ordinary skill in the art to modify burr to transmit synch data with a greater range than payload data in order to allow mobile to complete synchronization before entering data transmission range as taught by Fredricksson.

As to claim 34, Burr in view of Fredricksson teaches the mobile station according to claim 33, further comprising: a receiver to receive synchronization sequences from other mobile stations *(Burr see for example paragraphs 13, 31,33)*.

Consider claim 35. Burr teaches a radio communication system that is at least partly self-organizing, comprising: a plurality of mobile stations each having a transmitter to: send synchronization sequences with reference to which other mobile stations can synchronize themselves *(Burr see for example paragraphs 13, 31,33)*,

Burr lacks a teaching of sending payload data with a range that is less than a range for the synchronization sequences sent by the mobile station.

Fredricksson teaches an arrangement wherein the range of synchronization and payload packets are adjustable and can be adjusted such that the payload data is less than the synch data *(Fredricksson see for example figures 1A,1B,2, paragraphs 35,36)*. Fredricksson teaches that adjusting the synch range greater than the data range allows mobiles to complete synchronization before entering the data area *(Fredricksson see especially paragraphs 10)*. Therefore it would have been obvious to one of ordinary skill in the art to modify burr to transmit synch data with a greater range than payload data in order to allow mobile to complete synchronization before entering data transmission range as taught by Fredricksson.

Consider claim 36. Burr teaches a method for synchronization of mobile stations in a radio communication system that is at least partly self-organizing and has mobile stations which are situated in reciprocal radio range via an air interface, comprising:

transmitting synchronization sequences from at least some of the mobile stations *(Burr see for example paragraphs 13, 31,33)*;

using the synchronization sequences from other mobile stations so that each mobile station can synchronize itself *(Burr see for example figure 1, paragraphs 34,35)*.

Burr lacks a teaching of at least one of the mobile stations transmitting payload data with a range that is less than a range for synchronization sequences transmitted by the mobile station.

Fredricksson teaches an arrangement wherein the range of synchronization and payload packets are adjustable and can be adjusted such that the payload data is less than the synch data *(Fredricksson see for example figures 1,2, paragraphs 35,36. note that Fredricksson does not require GPS for the method, see for example paragraphs 8,10,13,32)*. Fredricksson teaches that adjusting the synch range greater than the data range allows mobiles to complete synchronization before entering the data area *(Fredricksson see especially paragraphs 10)*. Therefore it would have been obvious to one of ordinary skill in the art to modify burr to transmit synch data with a greater range than payload data in order to allow mobile to complete synchronization before entering data transmission range as taught by Fredricksson.

4. Claims 17,20,21,24,25,29,30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burr in view of Fredricksson and further in view of Larsen (US 6,785,510).

Consider claim 17. Burr in view of Fredricksson teaches the method according to claim 16, wherein the synchronization sequences are part of a data packet, which carries information.

Larsen teaches a synch packet that contains data regarding quality in order that decisions about connection can be made before connection and synchronization *(Larsen see for example column 3, lines 15 – column 4, line 15)*. It would have been obvious to one of ordinary skill in the art to modify Burr in view of Fredricksson to include quality data in order allow decisions about connection to be made before synchronization as taught by Larsen.

Consider claim 20. Burr in view of Fredricksson teaches the method according to claim 19, but lacks a teaching of wherein when deriving the internal synchronization position, the mobile station takes into consideration a quality level of each of the detected synchronization positions and/or its preceding synchronization position.

Larsen teaches a synch packet that contains data regarding quality in order that decisions about connection can be made before connection and synchronization *(Larsen see for example column 3, lines 15 – column 4, line 15)*. It would have been obvious to one of ordinary skill in the art to modify Burr in view of Fredricksson to include quality data in order allow decisions about connection to be made before synchronization as taught by Larsen.

Consider claim 21. Burr in view of Fredricksson teaches the method according to claim 16, but lacks a teaching of wherein synchronization sequences are transmitted in the same burst which also carries the payload data.

Larsen teaches a synch packet that contains data regarding quality in order that decisions about connection can be made before connection and synchronization *(Larsen see for example column 3, lines 15 – column 4, line 15)*. It would have been obvious to one of ordinary skill in the art to modify Burr in view of Fredricksson to include quality data in order allow decisions about connection to be made before synchronization as taught by Larsen.

Consider claim 24. Burr in view of Fredricksson teaches the method according to claim 16, but lacks a teaching of wherein the mobile stations transmit a quality level of their synchronization together with the synchronization sequences in order to improve synchronization.

Larsen teaches a synch packet that contains data regarding quality in order that decisions about connection can be made before connection and synchronization *(Larsen see for example column 3, lines 15 – column 4, line 15)*. It would have been obvious to one of ordinary skill in the art to modify Burr in view of Fredricksson to include quality data in order allow decisions about connection to be made before synchronization as taught by Larsen.

Consider claim 25. Burr in view of Fredricksson and Larsen teaches the method according to claim 24, wherein the synchronization sequences are transmitted via

bursts which are separate from payload data bursts *(Burr see especially figures 4, 5, column 5, line 43 – column 6, line 18).*

Consider claim 29. Burr in view of Fredricksson teaches the method according to claim 28, but lacks a teaching of wherein the mobile stations transmit a quality level of their synchronization together with the synchronization sequences in order to improve synchronization.

Larsen teaches a synch packet that contains data regarding quality in order that decisions about connection can be made before connection and synchronization *(Larsen see for example column 3, lines 15 – column 4, line 15).* It would have been obvious to one of ordinary skill in the art to modify Burr in view of Fredricksson to include quality data in order allow decisions about connection to be made before synchronization as taught by Larsen.

Consider claim 30. Burr in view of Fredricksson and Larsen teaches the method according to claim 29, wherein the synchronization sequences are transmitted via bursts which are separate from payload data bursts *(Burr see especially figures 4, 5, column 5, line 43 – column 6, line 18).*

Consider claim 31. Burr in view of Fredricksson and Larsen teaches the method according to claim 30, wherein the mobile station uses the synchronization sequences to synchronize time slots *(Burr see especially figures 4, 5, column 5, line 43 – column 6, line 18).*

Consider claim 32. Burr in view of Fredricksson and Larsen teaches the method according to claim 31, wherein only one mobile station starts a transmit operation within each time slot *(Burr see especially figures 4, 5, column 5, line 43 – column 6, line 18).*

Response to Amendment

5. Applicant's arguments filed July 19, 2007 have been fully considered but they are not persuasive.

Note that since the wrong patent number had been cited in the previous action and the examiner had agreed by telephone to re-mail and re-start, this action is not being made final.

Applicant argues that the cited Burr is directed to a mobile device, not a method, however as shown in the above rejections, Burr's device, as modified in the rejections would perform the method as claimed.

Applicant also argues that the rejection cannot cite both prior art figures 1A&B and paragraphs detailing Burr's invention. However Burr's prior art drawings present the overview of the environment in which Burr's invention is applied, see for example paragraphs 21 and 27.

Applicant argues that Fredricksson's synchronization range is due to the use of GPS, however Fredricksson clearly states that GPS is not required for the invention, as noted in the rejection of claim 36 above. It is further noted that the GPS time is merely the source of the master time generation system, not the cause of the difference in reception area.

Conclusion

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J Sobutka whose telephone number is 571-272-7887. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177.

8. The central fax phone number for the Office is 571-273-8300.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number.

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Philip Sobutka

(571) 272-7887

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Sobutka whose telephone number is 571-272-7887. The examiner can normally be reached Monday through Friday from Monday - Friday, 8:30am - 5:00pm.

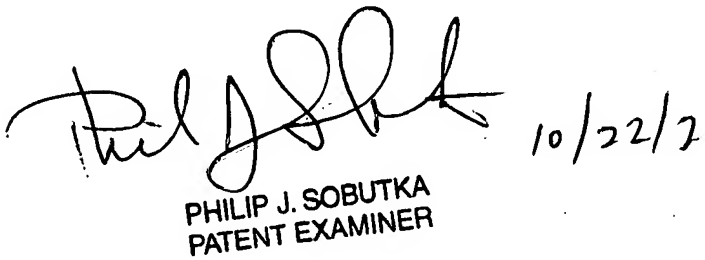
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-41774711.

11. The central fax phone number for the Office is 571-273-8300.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number.

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Philip J Sobutka

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